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NOTES FROM THE HERBARIUM OF THE UNIVERSITY OF WISCONSIN—X¹

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THAT part of Ontario between the Ottawa River and Sault Ste. Marie, including the north shore of Lake Huron and the vicinity of Georgian Bay, seems to have been botanized less extensively than its interesting flora would warrant. The following rather disjointed notes are the results of several trips by automobile, when it was seldom possible to collect at any great distance from the highways. The writer is indebted to the late Dr. M. O. Malte for much information concerning the known ranges of these plants in Canada, and especially to Mr. C. A. Weatherby for his kindly help in identifying much of the material.

Twelve miles east of Sault Ste. Marie the highway skirts for some distance a long, south-facing cliff, with well-developed talus. On this cliff, near Garden River, was collected *Woodsia Cathcartiana*, while in near-by woods was found *Osmorhiza divaricata*. The latter proves to be a not uncommon species in the upper Great Lakes area, having been found by the writer at Port Wing, Wisconsin, in great profusion in the Porcupine Mountains near Ontonagon, Michigan, on Manitoulin Island and on Bruce Peninsula.

The many small lakes between Sault Ste. Marie and Espanola are mostly rocky-shored, with small sandy beaches. Many of the plants are obviously of eastern derivation; these include *Elatine minima*, *Juncus pelocarpus* and *Eriocaulon septangulare*.

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Manitoulin Island may be approached from the north by a road from Espanola, which traverses a rugged and barren region of igneous and metamorphic rocks—"rough, tough and terrible," to quote a resident. Coincident with reaching the Lake Huron shore, on Cloche Peninsula, the highway abruptly emerges on a level limestone plain. There are but a few decimeters of soil, or in many places no soil at all, with vegetation occurring only in crevices in the rock. Here, on the dry barrens or margins of pools, are such characteristic plants of the Great Lakes as *Eleocharis pauciflora*, *Rynchospora capillacea* var. *leviseta*, *Hypericum Kalmianum*, *Primula intercedens*, and *Sisyrinchium montanum*. Here, with the Arctic *Carex scirpoidea*, are several plants apparently not hitherto reported from so far north in Ontario: *Geum triflorum*, *Linum sulcatum*, *Rhus canadensis*, and *Liatris cylindracea* (also reported from La Cloche Island).¹ Here was collected a mint which may be described as:

ISANTHUS BRACHIATUS (L.) BSP., var. **linearis**, n. var., caule simplice, 7-10 cm. alto, gracillimo; foliis superioribus linearibus, 1-1.7 mm. latis, 1-nerviis; calicibus minus glandulosis quam apud formam typicam, florentibus 3 mm. longis, fructiferis 4 mm. longis; bracteolis calycibus proximis.—Stem simple, 7-10 cm. high, very slender; upper leaves linear, 1-1.7 mm. wide, 1-nerved; lower leaves unknown; calyx less glandular than in the typical form, 3 mm. long in flower, 4 mm. in fruit; floral bracts closely subtending the calyx.—Dry limestone flats, Cloche Peninsula, Ontario, August 20, 1932, *N. C. Fassett*, no. 14770 (TYPE in Herb. Univ. of Wis.).

In aspect this little plant scarcely suggests *Isanthus brachiatus*, but its floral structure indicates that it is but a dwarfed northern extreme of that species.

In a lake on Great Cloche Island was found a plant differing from *Potamogeton Robbinsii* in lacking the ordinarily very characteristic minute serrulation of the leaves; its uniform occurrence in certain localities would indicate that it is more than a sporadic abnormality. It was found by two different collectors in different years in one lake in Wisconsin. The writer collected it at Mattawa, Ontario, in 1931, and in 1932 found it abundant at the same locality, although not *in situ*, for the water was high and only floating plants were collected. Besides occurring on Great Cloche Island, it has been collected on Cockburn Island, also in northern Lake Huron. The indication is that it replaces typical *P. Robbinsii* on many of these places, but, on the other hand, both types have been collected in Lake Maxinkuckee,

¹ Macoun, *Cat. Can. Pl.* ii. 207 (1884).

Indiana. The only real intermediate seen is from Togue Pond, near Mt. Katahdin, Maine, collected by A. H. Norton on July 28, 1923; this has some of the leaves serrulate and some entire. Many specimens which at first appear to have entire leaves prove otherwise when examined with transmitted light under a binocular microscope.

POTAMOGETON ROBBINSII Oakes, f. **cultellatus**, n. f., marginibus foliorum non serratis, firmis, stramineis, nitentibus.—WISCONSIN: Bond Lake, Gordon, September 14, 1930, *W. T. McLaughlin*, no. 13081; Bond Lake, Gordon, July 9, 1931, *J. H. Steenis*, no. 1369. MICHIGAN: Liver Light Lakes, Iron County, September, 1922, *F. P. Metcalf*, no. 2232.¹ INDIANA: Lake Maxinkuckee, 1904, *J. T. Scovell*, no. 29.² OHIO: Sandusky Bay ["Sand Bay" on the label; Dr. Pieters writes me that this was an abbreviation for Sandusky Bay], August 31, 1898, *A. J. Pieters*.² ONTARIO: Cockburn Island, Lake Huron, *J. Bell* in 1860;³ shallow water of Helen Lake (or Lewis Lake), Great Cloche Island, August 20, 1932, *N. C. Fassett*, no. 14806 (TYPE in Herb. Univ. of Wis.); shallow water, Mattawa, July 4, 1931, *Fassett*, no. 13325; floating in the Mattawa River, Mattawa, September 9, 1932, *Fassett*, no. 14805. CONNECTICUT: Hamlen's Pond, Plainville, July 29, 1901, *C. H. Bissell*.

Manitoulin Island, in the northern part of Lake Huron, is 80 miles long, and has on it many small shallow lakes. The most conspicuous topographic feature is a limestone cliff along the northern side; this is the escarpment of the Niagara limestone, which also makes up the backbone of Door County, Wisconsin, and of the Bruce Peninsula, Ontario. This escarpment appears like a promising territory for a botanist, but fires have been so devastating that most of the cliffs and talus slopes have become too dry to support much vegetation. A collector who could take the time to find moist sheltered places would probably discover much of interest. Visiting a talus slope near High Hill, Excelsior, on August 21, 1932, the writer collected a *Woodsia* of the puzzling *oregana* group, which superficially resembled *W. Cathcartiana*, but differed from that species in having the margins of the pinnules jagged and glandular; in this it matched a specimen of *W. mexicana* collected by Wootton & Standley, in the White Mountains, Lincoln County, New Mexico, August 25, 1907.

On the Lake Huron shore, about eight miles west of Little Current, on Manitoulin Island, was collected *Bidens frondosa* var. *anomala*,

¹ Specimen in the United States National Herbarium; the writer is indebted to Dr. Maxon for the loan, and to Mr. Neil Hotchkiss for examining and selecting this material.

² Specimen in the Gray Herbarium, the writer is indebted to Professor Fernald and Mr. Weatherby for selecting and loaning this material.

new to Ontario and apparently not previously known from the shores of the Great Lakes except at the eastern end of Lake Ontario.

Bruce Peninsula has long been known as the home of some remarkable plants.¹ Here, as on Manitoulin Island, fire has done much damage. On a cool damp cliff at Barrow Bay the writer collected *Draba cana*, new to Ontario and not recorded in Gray's Manual as occurring between Vermont and the Rocky Mountains, while in moist woods near-by was found *Epilobium paniculatum*, which has been reported by Macoun from Bruce Peninsula. On talus slopes and stony beaches *Geranium Robertianum* is perhaps the most abundant plant. *Arenaria serpyllifolia* is so universally present on the escarpment of the Niagara limestone, is in such undisturbed habitats and in company with so many native species that it is hard to believe that it is an adventitious plant. It has been collected by the writer on the escarpment at the following places: Fish Creek, Wisconsin, in company with a *Draba* as yet unidentified; Pickford, Michigan, with *Asplenium viride* and *Polystichum Lonchitis*; near High Hill, Excelsior, Manitoulin Island, with the *Woodsia* just mentioned; Barrow Bay, Bruce Peninsula, with *Draba cana*.

Lake Nipissing is 50 miles northeast of Georgian Bay, and lies in the channel of one of the outlets of the Algonquin Great Lakes. Here were found two plants of some interest.

LATHYRUS JAPONICUS Willd., var. **parviflorus**, n. var., caulibus gracilibus, glabris vel pilosis in angulis; floribus 12–14.5 mm. longis; calicibus 7–8 mm. longis; leguminibus 3.8–4.8 cm. longis, chartaceis; seminibus 3.5–4 mm. diametro.—ONTARIO: sandy shore of Lake Nipissing, North Bay, July 3, 1931, *N. C. Fassett*, no. 13485 (TYPE in Herb. Univ. of Wis.); same station, plant with mature pods, September 10, 1932, *Fassett*, no. 14768; Lighthouse Point, on the southeast shore of Lake Nipissing, September 10, 1932, *Fassett*, no. 12952; Waltonian Lodge, on the southeast shore of Lake Nipissing, September 10, 1932, *Fassett*, no. 14769.

This beach pea, apparently isolated on the shores of Lake Nipissing since the time when that lake was a part of the outlet of the glacial Great Lakes, is slightly more slender than are the common plants of marine and Great Lakes beaches, has a much smaller flower, and a legume with much thinner and more papery walls. Moreover, the fruits and seeds at their largest development scarcely equal the smallest to be found on the more widespread varieties. In the type collec-

¹ See Mem. Am. Acad. Arts & Sci. xv, 256 (1925).

tion the flowers are nearly white, but the plants collected at the same station fourteen months later show normally colored flowers.

The pubescent variety of beach pea (*L. japonicus* var. *pellitus*), so abundant on the north Atlantic coast, is but sparsely represented about the Great Lakes, there being no material in the Gray Herbarium from inland stations.¹ Of the 42 sheets of *L. japonicus* from the Great Lakes region in the Herbarium of the University of Wisconsin, but two can be definitely referred to var. *pellitus*; these are: Washington Island, Door County, Wisconsin, July 22, 1926, A. M. Fuller, no. 1522; Manistique, Michigan, July 1, 1931, N. C. Fassett, no. 13482.

The recent changes in the nomenclature of the beach pea are here followed, although the writer is of the opinion that *Lathyrus japonicus* vs. *L. maritimus*, following *Quercus borealis* vs. *Q. rubra*, *Juncus macer* vs. *J. tenuis*, *Solidago flexuosa* vs. *S. latifolia*, and *Acer Treleaseanum* vs. *A. saccharum*, should be the last straw on the back of the last objector to the conservation of specific names.

BIDENS CONNATA Muhl., var. **submutica**, n. var., aristis nullis vel rare 1–2, 0.25–1.00 mm. longis; foliis simplicibus, petiolatis, dentibus var. *petiolatam* vel var. *ambiversam* simulantibus.—Awns none or rarely 1–2 in number and 0.25–1.00 mm. long; leaves simple, petioled, toothed as in var. *petiolata* or as in var. *ambiversa*.—ONTARIO: sandy shore of Lake Nipissing, North Bay, September 10, 1932, Fassett, no. 14775 (TYPE in Herb. Univ. of Wis.); near Waltonian Lodge, southeast shore of Lake Nipissing, September 10, 1932, Fassett, nos. 14800, 14801, and 14802.

At Galetta, about 25 miles above Ottawa, the “Mississippi River” enters the Ottawa River. On the shore of the small stream, close to the highway, were collected *Typha angustifolia*, of which Dr. Malte wrote me that he had seen no specimens from above the Ottawa district, and *Juncus compressus*, of which he wrote me that he had seen no material from the Province of Ontario.

MADISON, WISCONSIN.

ON POLYSIPHONIA FIBRILLOSA IN NEW ENGLAND.—It is well known that this species is common south of Cape Cod. But, when Farlow's *Marine Algae of New England* appeared in 1881, only one specimen of this alga had ever been found north of that famous barrier of marine life. This had been collected by Hooper at Lynn,

¹ RHODORA xxxiv. 184 (1932).